

A new feature for the separation of *Trochosa spinipalpis* and *T. terricola* males (Araneae, Lycosidae)

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Abstract: A new feature on the tip of the palp, which enables the separation of male *Trochosa spinipalpis* (F. O. P.-Cambridge, 1895) from *T. terricola* Thorell, 1856, is described. *T. terricola* exhibits a hairless strip on the tip of the palp, while *T. spinipalpis* lacks this feature and has long hairs on the whole palp.

Key words: Europe, taxonomy, wolf spiders

Generally, morphological characters of the bulb are used in determination keys to separate species of male lycosid spiders (e. g. HEIMER & NENTWIG 1991, ROBERTS 1995). Characters used for separation of the five Central European *Trochosa* males include the pedipalp, tarsus I, the fang and the palpal claw (e.g. DAHL 1908, LOCKET & MILLIDGE 1951, ENGELHARDT 1964, TANAKA 1988, HEIMER & NENTWIG 1991, ROBERTS 1995). The presence/absence of a claw at the tip of the pedipalp divides the five species into two main groups. The first group, possessing a claw, contains *T. hispanica* Simon, 1870, *T. robusta* (Simon, 1876) and *T. ruricola* (De Geer, 1778). The second group, without a claw, consists of *T. spinipalpis* (F. O. P.-Cambridge, 1895) and *T. terricola* Thorell, 1856. The main characters separating *T. spinipalpis* and *T. terricola* are the presence/absence of a group of stout spines (Fig. 1a, b) on the under surface of the palpal tibia and the shape of the palp (see also ROBERTS 1995). LOCKET et al. (1974) noticed that: "Male specimens of *T. spinipalpis* are sometimes found in which the spines on the palpal tibia (Volume I, Text-fig. 134, D) are not as strongly developed as usual, and difficulty in distinguishing from *T. terricola* can sometimes arise." In such cases the authors indicated that the tip of the embolus is a confirmatory character concluding that: "... in view of Engelhardt's findings for other characters, the distinction should be used with caution."

In the present study 15 males of *T. spinipalpis* and 70 of *T. terricola* were examined. The tips of the palps were studied under a binocular microscope. Three palps of each species were studied under a Philips XL 20 scanning electron microscope (SEM). The material was provided by C. Komposch (private collection) and N. Milasowszky (private collection).

Material examined:

T. spinipalpis

C. Komposch: A, Carinthia, near Hüttenberg, "Hörfeld-Moor", 13.VI.1996, 15 ♂♂.

T. terricola

N. Milasowszky: A, Lower Austria, Hundsheim, "Königswarte", 29.IV.2003, 27 ♂♂; A, Lower Austria, Hundsheim, "Spitzerberg", 29.IX.2003, 23 ♂♂; A, Lower Austria, Lunz, "Rothwald", 2003, 3 ♂♂; A, Vienna, Botanical Garden of the University of Vienna, 2005, 2 ♂♂; A, Vienna, Lobau, "Heißblände", 1999, 15 ♂♂.

Our examinations revealed that the palpal tip of *T. terricola* possesses a hairless strip (Fig. 2b), while the whole tip of the palp of *T. spinipalpis* is covered by long hairs (Fig. 2a). This new feature in *T. terricola* can clearly be seen under the binocular microscope and thus will help to separate males of *T. spinipalpis* and *T. terricola* quickly and reliably.

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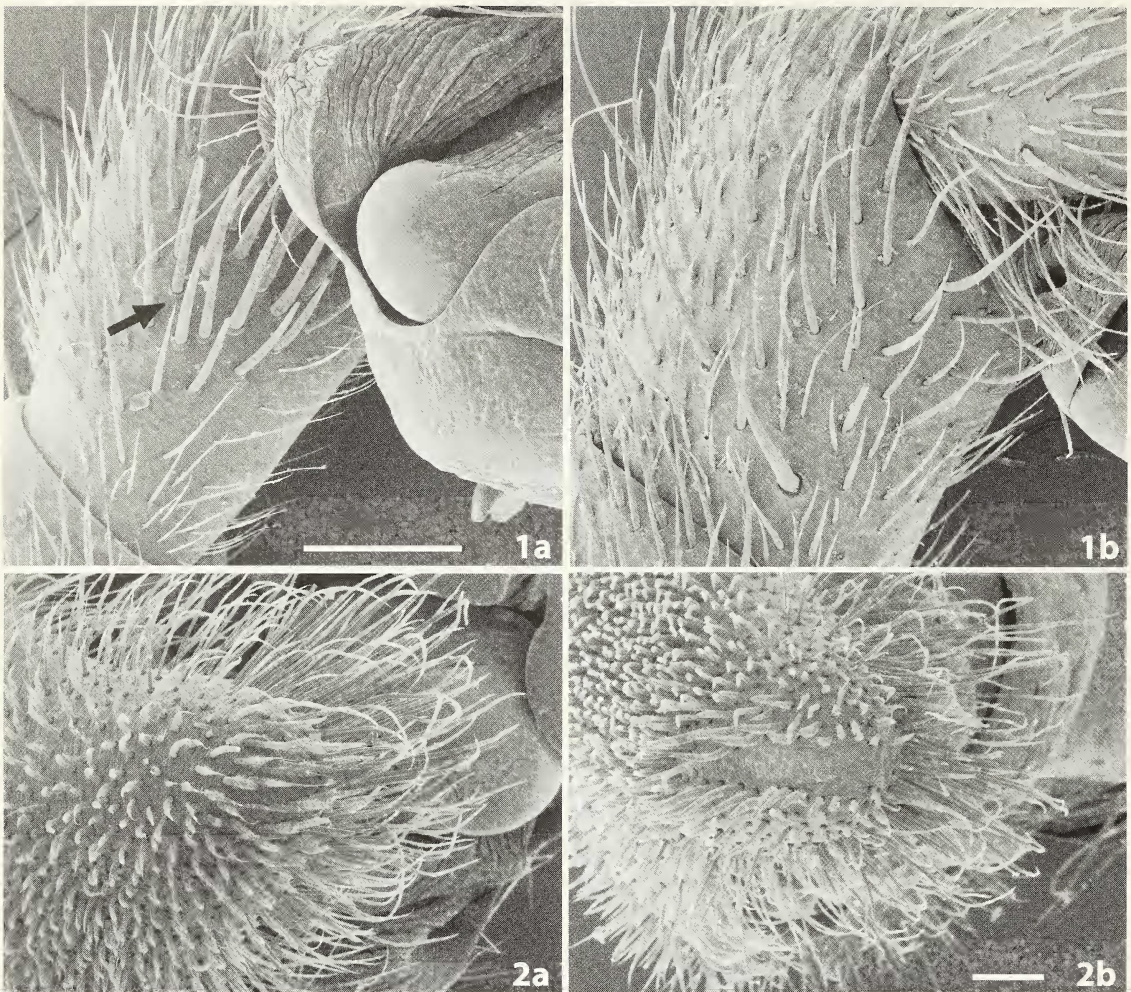


Fig. 1: Tibia of the left pedipalp of (a) *T. spinipalpis* with a group of stout spines and (b) *T. terricola* without this feature, prolateral view. Scale = 200 μ m

Fig. 2: Palpal tip of (a) *T. spinipalpis* covered by long hairs and (b) *T. terricola* with a distinct hairless strip. Scale = 100 μ m

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